

## Special Issue

# Advanced Hydroponics Technology for Vegetable Production: New Opportunities and Challenges

### Message from the Guest Editors

- Technological Innovations: New technologies and methodologies in hydroponic systems, including advancements in nutrient delivery systems, lighting solutions, automation, plant nutrition, nutrient uptake, and new fertilizers.
- Sustainability and Resource Efficiency: Studies focusing on the sustainability aspects of hydroponics, including water use efficiency, nutrient use efficiency, food biofortification, use of biostimulants to reduce fertilizer use, energy consumption, and the environmental impact of hydroponic farming.
- Crop Performance and Yield Optimization: Research on optimizing plant growth conditions, nutrient formulations, and management practices to maximize crop yield and quality.
- Integration with Other Systems: Exploration of the integration of hydroponics with other agricultural systems, such as aquaponics, vertical farming, and controlled environment agriculture.
- Challenges and Solutions: Identification of the current challenges faced by hydroponics industry and potential solutions to overcome these hurdles, including technical, economic, and social aspects.

### Guest Editors

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### Deadline for manuscript submissions

closed (10 May 2026)



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